

Application No. 10/534,747
Amendment dated September 15, 2008
Reply to Office Action of May 14, 2008

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Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

Claims 1 - 36 (canceled)

Claim 37 (new): A molding system producing corrugated pipe including a first series of mold blocks secured to a drive arrangement moving said mold blocks along a molding path and abutting with a second series of mold blocks secured to a drive arrangement for moving along said molding path with said first and second series of mold blocks forming a moving mold tunnel determining the shape of the corrugated pipe; and wherein

each mold block includes a plurality of troughs integral to the mold block with the troughs spaced in a length of the mold block;

each mold block between adjacent troughs including a crest mounting portion integral with the mold block with each crest mount portion including between adjacent troughs an upwardly opening channel centered on said crest mounting portion;

said molding systems including first and second crest forming parts where each crest forming part is mountable on one of said cresting mounting portions and cooperates with the troughs either side thereof to form corrugations in the corrugated pipe;

said first crest forming parts when secured on said mold blocks producing corrugated pipe with corrugations of a first size and said second crest forming parts when secured on said mold blocks producing corrugated pipe with corrugations of a second size greater than the first size;

each crest forming part including a center projection of a shape for receipt in and abutment with one of said upwardly opening between adjacent troughs;

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each mold block with respect to each crest forming part includes recessed attachment brackets at opposite ends of the crest forming part securing said crest forming part on said central projection of the respective crest mounting portion; and wherein

each crest forming part is removable from a mold block by release of said attachment brackets and movement of the crest forming part upwardly out of the respective upwardly opening channel.

Claim 38 (new): A molding system as claimed in claim 37 including a first interior cooling plug sized to cooperate with said first crest forming parts and determine an inner wall of a first double walled pipe, and

a second interior cooling plug sized to cooperate with said second crest forming parts and determine an inner wall of a second double walled pipe.

Claim 39 (new): A molding system as claimed in claim 37 wherein each mounting bracket arrangement includes a bracket secured by a bolt in engagement with the mold block and each bracket includes a body with a first arm extending from one end thereof with said first arm received in a recess of the crest forming part and a second arm extending from said body and spaced from said first arm received in a recess in said mold block.

Claim 40 (new): A molding system as claimed in claim 37 wherein each mold block includes vacuum and cooling channels having a fixed relationship with said integral troughs.

Claim 41 (new): A molding system as claimed in claim 38 wherein said first crest forming parts are longer than said second crest forming parts and said first cooling plug is of smaller diameter than said second cooling plug.

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Claim 42 (new): A pipe molding apparatus for making a continuous length of plastic pipe, said apparatus comprising first and second mold block sections each having profiled faces formed by crests and troughs on the profiled faces of the mold block sections;

a first set of face attachments and a second set of face attachments;

the first and second sets of face attachments being interchangeably and releasably insertable on to the profiled faces of the mold block sections by separation of said face attachments inwardly away from said troughs and first and second cooling plugs of diameters differing from one another;

the first and second mold block sections circulating to and away from a molding tunnel of the apparatus which contains one of said cooling plugs, the mold tunnel receiving a continuous stream of molten plastic forming pipe with an internal bore over one of the cooling plugs and receiving a further stream of molten plastic forming a wall having an undulating exterior surface around said bore;

the undulating surface defining external diameter of the pipe;

the first mold block sections closing with the second mold block sections to form a moving line of closed mold blocks while circulating through the mold tunnel and the first and second mold block sections parting from one another while circulating away from and back to the mold tunnel;

said apparatus when in a first set up condition producing pipe with a first bore diameter when the first set of face attachments are fitted to the profiled faces of the first and second mold block sections and when the first cooling plug is placed in the mold tunnel and the apparatus when in a second set up condition producing pipe with a second bore diameter different from the first bore diameter while maintaining essentially constant wall thickness of the pipe when the second set of face attachments are fitted to the profiled faces of the first and second mold block sections and secured

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at the ends of the mold block sections and when the second cooling plug is placed in the mold tunnel;

the external diameter of the pipe remaining constant in both the first and the second set up conditions of the apparatus; and wherein

each mold block includes integral trough portions that define the external diameter of the pipe;

said integral trough portions having a fixed relationship with vacuum and cooling channels of each mold block.

Claim 43 (new): A pipe molding apparatus as claimed in claim 42 wherein said first and second set of attachments are releasably secured in recesses provided in end faces of the mold blocks.